Introduction of co-operative learning to Grade 4 learners in some disadvantaged schools

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The nature of co-operative learning among Grade 4 learners who, for the first time, were confronted with a task-based approach in the social sciences was investigated. The investigation was undertaken in three schools in Mangaung, a typical disadvantaged community. The main source of qualitative data consisted of transcriptions of the audio-taped verbal interaction of learners working in groups. For the purposes of this article six events were chosen from the corpus of transcriptions. These events are presented in the original Sesotho with translations in English in a turn-by-turn format. The verbal interaction is analysed in terms of the speech acts performed by the learners in turn-taking. The communicative analysis reveals the way in which learners spontaneously took on social roles by fulfilling certain functions and were actively involved in a meaning-making process during which collaborative and goal-directed learning took place.

Introduction

The political transition in South Africa brought along a change in the education system. Through Curriculum 2005, which started in Grade 1 in 1998, Outcomes Based Education (OBE) was gradually implemented. The move from a content-based to a learning-centred approach that is outcomes-driven, is in line with large-scale educational innovations in many countries around the world (Elen & Rosseel, 1999:1-2). In South Africa the proposal for OBE emerged in 1996 and teachers were confronted by "a curriculum discourse completely foreign to their understanding and practices" (Jansen, 1999:7). They had to become acquainted with new goals, a new discourse and most of all, a new conception of learning and instruction.

The changes that the implementation of OBE brings to the classroom may be drastic not only for the teacher, but also for the learners. Instead of a teacher standing in front of learners transferring content to passive listeners, there is a facilitator organising groups of learners who are actively involved in the learning process. Co-operative learning enhances the principles of co-operation, critical thinking and social responsibility. The question that comes to the fore is: Can learners make the sudden shift to the new way of learning?

This article reports on a qualitative investigation into the nature of co-operative learning among Grade 4 learners, who were confronted with a task-based approach in the social sciences for the first time. The investigation was undertaken in three schools in Mangaung. The schools are situated in a disadvantaged community similar to many others in South Africa. Generalisation of results is, however, not a goal in this type of research, as it would have been in a positivist, statistically driven study (Faltis, 1997:149). The main concern is description, understanding and explanation (Merriam, 1988:7; Henning, 1995:128) of the real situation in the classroom.

Objectives

The investigation had the following objectives:
1. To study the behaviour of learners in a group in terms of their interaction and communication.
2. To describe the social roles that learners assume as a result of working in groups.
3. To describe the learning processes which take place in the groups.

Theoretical background

Classrooms as found in the schools in Mangaung can be described as "extremely traditional" (Messerschmidt & Mahlomaholo, 1999:9; Messerschmidt *et al.*, 2000:7-8). Teaching methods reflect a behaviouristic view on learning and instruction. In sharp contrast, the new way of teaching is based on a social constructivist view. An in-depth analysis of the underlying philosophy and the merit of each view falls outside the scope of this article. For the purpose of the current study the OBE framework with its social constructivist underpinnings is accepted as a given in the present educational context. Discussions of the different forms of constructivism and the meaning, assumptions and implications of social constructivism can be found in literature as explicated by Gergen (1995), Cobb (1996), Spivey (1997), and Masithela and Steyn (1999). A social constructivist view on learning is expressed by De Corte (1996:9). He characterises learning as "a constructive, cumulative, self-regulated, goal-directed, situated, collaborative and individually different process of meaning construction and building of knowledge." For the purpose of the current investigation we accept the working definition of Masithela and Steyn (1999:23), who interpret social constructivist theory of learning to mean that "learners co-construct shared meanings within a process of negotiation and even conflict through mainly language engagement." During negotiation, personal meanings expressed in a group are shaped by the audience and mutually contextualised. In this process language plays an important role.

Co-operative learning is an instructional design in which learners work together in a group towards a common goal. The social interaction between the members leads to the solving of a problem, the making of a decision or the completion of a task. (De Corte *et al.*, 1990:335; Van der Horst & McDonald, 1997:128; Gawe, 2000:190). In the present study learners had to complete tasks and the approach was therefore "task-based".

The benefits of co-operative or group learning are described by Johnson and Johnson (1974:213-240), McNally (1977:129-130) Slavin (1996:353-354), Avenant (1990:184) and Gawe (2000:203-204), to name but a few. The most salient advantages of co-operative learning seem to be the development of both intellectual and social skills. The learners' understanding and skills, in the learning area being taught, are improved. They are all likely to succeed through helping each other. They learn to listen and respect one another. They develop co-operative group skills and learn to appreciate different individuals and cultures. The social and intellectual aspects of co-operative learning are not easily separated. Joyce and Weil (1972:30) point to the combination of "a view of society and a view of intellectual process" in interaction-orientated models of teaching.

According to Slavin (1990:95) researchers agree that co-operative learning can produce positive effects on achievement but disagree on the conditions under which the approach is effective.

Methodology

To achieve the research objectives a qualitative study was undertaken, which is connected to a larger research project, the Phaphamang Language Project.[1] This international project, undertaken by two universities in South Africa and two universities in Belgium, addresses questions on the learning effects and learning processes related to two educational approaches, i.e. learning-centred versus content-based education (Elen & Rosseel, 1999:4-5). For each approach teachers who were specially trained for the project presented twelve history lessons of one hour each at three schools. The co-operative learning, reported on in this article, occurred in the learning-centred lessons of the project. The design of the larger project was quasi-experimental. An intervention was made for the teaching of one subject according to two teaching

approaches, but the class groups were kept intact. For the larger project quantitative data were collected on the performance of learners in the two approaches in the field of English, Sesotho and History and qualitative data on the instruction by the teachers. In this article we concentrate solely on co-operative learning aspects.

The lessons were tested during a pilot study in a school similar to the three participating schools. The successful implementation of co-operative learning during the lessons was hampered by two major problems, i.e. the classroom environment and the language of instruction. Teachers had to handle large numbers of learners (between 45 and 49) in a classroom that was too small. It was extremely difficult to arrange the furniture for group work. The teachers could not easily access the groups. During the jigsaw technique (Gawe, 2000:202) the situation became worse. The learners struggled to move to their new groups and some of them took their chairs with them. The learners were not used to the new approach (that was followed only for the teaching of History). The lack of resources at the schools forced the project teachers to bring along all the material and teaching and learning aids.

The official medium of instruction, chosen by the parents and governing bodies of Mangaung schools, is English from Grade 4. The learners, however, could neither understand the explanations of the teachers, nor the instructions for the co-operative tasks. Teachers had to use more and more Sesotho. The advice of the researchers was to keep to code-switching, meaning the use of the two languages for different functions and to avoid code-mixing, i.e. giving the same information in both languages or mixing different languages in one sentence (Daems & De Corte, 2000:2). In the group the learners communicated in Sesotho. According to Wessels and Van den Berg (1998:15), this is to be expected and allowed in an OBE environment. For the purpose of the investigation reported on in this article, one group of learners was chosen randomly at each of the participating schools. To provide tape-recorders and operators for each of the eight groups in one classroom would have been impractical if not impossible. The three selected groups were followed throughout the investigation. The verbal interaction was audio-taped (Motsitsi, 2001:38). Word for word transcriptions were made and analysed. Data obtained from video-tapes, field notes and class observations will be discussed where relevant. The nature of co-operative learning is explored by studying the verbal interaction of learners during group work. This places the study within the framework of applied conversation analysis. "Talk-in interaction" is not studied in its own right, but with a wider educational concern (Heap, 1997:218-219).

The transcriptions are presented in a turn-by–turn format. The turns are analysed on the basis of Speech Acts Theory. In each turn the speaker performs certain speech acts, e.g. making statements, asking questions, making requests, issuing commands, giving reports, expressing agreement or disagreement, etc. (Searle, 1972:39; Searle, 1980: 22-23; 66-67). In each turn the speaker uses one or more linguistic forms, each with a specific intention. Each linguistic form used in a specific context thus has a linguistic function or pragmatic meaning. An assumption made in this study is that by describing what learners do with words, inferences can be made on how they are learning in the group while working on a task. A social and a learning dimension are expected to be found in the events of co-operative learning (*cf.* also objectives 2 and 3).

Interaction

To illustrate the nature of the interaction in the groups, six events of co-operative learning are chosen and discussed below. Due to limited space it is not possible to describe all the events. Two events are chosen from each school and the total represents a variety of tasks. The language of communication was Sesotho. English translations are given in brackets in italics. English words used in Sesotho sentences are also in italics. Preceding each event the teacher gave instruction on the task to be performed and after the event learners reported back. During the event the teacher acted as facilitator moving from group to group and guiding learners. The teacher used Sesotho when communicating with the groups.

Event 1: "Monuments" at school B

Each group receives a picture of a building in Bloemfontein, which they have to identify.

[1]Tumelo: Ke koo *court* mona wa itse ke bona kang? Ka *picture*. (*Is this a court here that I see? In the picture.*)

[2] Nthabeleng: Ee, ke *court*. (*Yes, it's a court.*)

[3] Tumelo: Lekhetho, ha o tsotelle *picture*, o a kula? (*Lekhetho, you are not looking at the picture, are you ill?*)

[4] Puleng: Ke paramente mona. (*This is a parliament here.*)

[5] Nthabeleng: Ke *court* wena. (*It's a court, man* (*you*)*.*)

[6] Palesa: Ena ke *church*. (*This one is a church.*)

[7] Puleng: Ae! (*No!*)

[8] Nthabeleng: Ke le bolelletse hore ke *court*, e seng *church*. (*I told you* (*plural*) *that it is a court, not a church.*)

[9] Tumelo: *May be* ke … ke ke le bolelletse hore ke *court picturing* moo. (*May be it is ... it is I told you that it's a court.*)

[10] Teacher to group: Ke eng *picturing*? (*What's on the picture?*)

[11] Tumelo: Ke *court* mme. (*It's a court ma'm.*)

[12] Teacher to group: Le tsebeletse kae ke mang ya le jwetsitseng? (*How do you know, who told you?*)

[13] Tumelo: Ha ho motho, mme. (*Nobody, ma'm.*)

[14] Teacher to class: O.K., ke *court*, ke *appeal court*. Yona e hahwe ka 1929, le a bona e *decoratwe* hantle jwang? … (*O.K., it's a court, the Appeal Court. It was built in 1929. Do you see how nicely it is decorated.*)

Tumelo takes the lead in [1] and ventures an opinion on what the picture is of. Nthabeleng agrees that it is a court in [2]. In [3] Tumelo addresses Lekhetho who does not pay attention and asks if he is ill, thereby trying to involve a non-participant. The next turn is taken by Puleng who disagrees with Tumelo and Nthabeleng by making a new statement in [4]. In [5] Nthabeleng reinforces her statement in [2] disagreeing with the statement of Puleng in [4]. Palesa gives a different opinion, thereby disagreeing with the previous speakers in [6]. Puleng disagrees with Palesa by just saying "No!" in [7]. Nthabeleng and Tumelo reaffirm their statements in [8] and [9], respectively. The teacher assesses the group in [10] by asking what the picture is about. Tumelo answers in [11]. The teacher asks how they know this in [12] and again it is Tumelo who answers in [13].

The learners engage in a debate on the identification of the building in the picture. The simplicity of the task is reflected in the straightforward communication. Except for [3] the contributions of the learners (agreement or disagreement) follow a logical pattern in that the answer usually is a reaction to the previous statement. Turns [1], [2], and [4] to [11] are about learning content. One of the learners comes to the fore as a leader. Tumelo initiates the debate, encourages participation and gives feedback to the teacher. Three other learners participate. Only one learner does not take part.

Event 2: "Important People" at school B

The teacher hands out pictures of people about whom they have already talked. The learners have to provide more information on each person. The first 11 turns of the verbal interaction are as follows.

[1] Palesa: Morena Moshoeshoe! (*King Moshoeshoe!*)

[2] Puleng: Ke tla bua no.1. (*I'll be the first to talk.*)

[3] Palesa: Dr. Chris Barnard e ne e le *doctor* ya di *operation*. (*Dr Chris Barnard was a surgeon.*)

[4] Nthabeleng: Miriam Makeba.

[5] Puleng: Morena Moshoeshoe o ne a thusa batho a ba kopanya a tlosa madimo ya sethjaba sa Basotho.

(*King Moshoeshoe helped to get rid of the cannibals and he built the Basotho nation.*)

[6] Tumelo: Nelson Mandela o qetile 27 years a le ka toronkong. O hlahile neng? (*Nelson Mandela was imprisoned for 27 years. When was he born?*)

[7] All: 1918.

[8] Palesa: Lucas Radebe ke motho wa bolo. (*Lucas Radebe is a soccer player.*)

[9] Puleng: O ne a dula ka Soweto, *nou* o dula ka England. (*He used to stay in Soweto, but now he stays in England.*)

[10] Nthabeleng: O bapalla … O bapalla … (*He plays for …*)

[11] Lekhetho: Leeds United.

The first six turns of this event do not follow in logical order in the sense that each of them is not a direct reaction to the previous one. This may be due to the fact that the learners have more than one picture to look at and each of them wants to talk about the person he/she knows best. It is only when they come to talk about Nelson Mandela and Lucas Radebe that they work together. Puleng does not act as a strong leader in this event.

Palesa is first to identify a person (in [1]). There is no reaction to her statement. Puleng tries to take the lead in [2] by stating that she wants to talk first. The others ignore her and Palesa gives information on a second picture in [3]. She identifies Dr. Barnard. Nthabeleng identifies still another person, i.e. Miriam Makeba in [4], but she does not give any information on her. In [5] Puleng returns to the first person mentioned, King Moshoeshoe, and gives information on him. This can be considered to be a reaction to [1]. Tumelo gives information on Nelson Mandela in [6] and asks a question. He gets a chorus answer from the others in [7]. Palesa offers information on Lucas Radebe in [8]. Three other members take turns to add information to [8]: Puleng in [9], Nthabeleng (tries) in [10] and even Lekhetho (the quiet one) in [11]. This is an example of how learners co-operate to assemble information. Together they build on a body of knowledge. From the data strong evidence emerged of learning taking place in a social context.

Event 3: "Schools Then" at school C

This event fits in well with the framework of OBE. As a preliminary task the learners had to ask their grandparents about the schools of the past. In class they had to discuss their findings within their groups and each group had to complete a worksheet stating the similarities and differences between schools now and then.

[1] Mpho: Nkgono wa ka o ne a kenela tlasa sefate. (*My grandmother attended school under a tree.*)

[2] Palesa: Ee, bonkgono ba ne ba se na di *classroom* jwale ka rona. (*Yes, our grandmothers didn't have classrooms like we do now.*)

[3] Mpho: Wena o tseha eng jwale? (*What are you laughing at now?*)

[4] Tebogo: Bane ba ngolla diropeng. (*They wrote on their thighs.*)

[5] Mpho: Ae, nna … nkgono wa ka o itse ba ne ba ngolla matlapeng. (*No, I … my grandmother said they wrote on slates.*)

[6] Tebogo: Hape ba ne ba se na matithjere a mangata. (*They also didn't have many teachers.*)

[7] Mpho: Ba ne ba shapwa ka dithupa haholo ba *punishwa*. (*They were severely beaten with sticks when they were punished.*)

[8] Palesa: Ngola hantle wena ha re bone ntho eo o e ngotseng. (*Write clearly, you. We can't see what you have written.*)

[9] Teacher: O.K., your time is up. Let's hear from this group.

Mpho initiates the discussion in [1]. In [2] Palesa agrees and gives a reason or clarification for her agreement. In [3] Mpho tries to keep order by addressing Tebogo, who is laughing. She asks for a reason.

Tebogo gives the reason in [4]. Mpho reacts to the content of [4] disagreeing with Tebogo in [5]. She motivates her answer with a statement from her grandmother. Tebogo co-operates in [6] by adding information on the schools of the past. In [7] Mpho adds new information. In [8] Palesa admonishes the person who is writing to write clearly. In [9] the teacher ends the groupwork and asks a specific group to give feedback.

In this event learners act as researchers. They report back on the research they have done. They discuss and integrate information and report back. In the process they refer to their sources by quoting their grandmothers. This situates the learning in a cultural context. Mpho initiates the discussion and keeps order. She takes her work seriously. Palesa engages in quality control. Tebogo tries to joke. There is a scribe in the group, but this person cannot be identified from the verbal interaction.

Event 4: "Important People" at school C

Each group receives a poster with a row of pictures of important people and an envelope containing pieces of paper with information concerning the people. The task of the learners is to paste these pieces of paper onto the right spaces on the poster.

[1] Thabo: Ke *bishop* mona. Bea pampiri ya *bishop* moo. (*Here is a bishop. Paste the paper of the bishop here.*)

The teacher interrupts with instruction on the completion of the task. The learners organise themselves. It is Mpho who identifies the king of the Basotho nation and the premier. We follow the group again from turn [10] onwards.

[10] Mpho: Enwa ke *bishop*. (*This one is a bishop.*)

[11] Tebogo: Ae, re ntse re fosa. (*No, we are making a mistake.*)

[12] Mpho: *Palesa, what is his name?*

[13] Palesa: Ha ke tsebe. Hana enwa ke mang? Ke ena a se nang dilemo. (*I don't know. Who is this one? He is the one without the date of birth.*)

[14] Mpho: Ha ke tsebe haeba ke di fapantsitse, di dutse moo ho nepahetseng naa? (*I don't know if I have not mixed the papers, are they where they belong?*)

[15] Palesa: Ee. (*Yes.*)

[16] Mpho: Ene ha ke bale, le a bona ke ntse ke dipasa jwang? (*I am not reading, can you see I'm getting them right?*)

[17] Teacher: Etsang kapele le qete. (*Finish up quickly.*)

[18] Thabo: Otjhong hore enwa ha a na dilemo hee! (*Which means this one has no date of birth.*)

[19] Mpho: Le a bona lona le ntse le bapala, le tlo presenta. (*You see you people are playing. You will have to present this work* (*to the class*).)

[20] Tebogo: Bitso la motho eo ke mang, hle? (*What is this person's name, please?*)

[21] Palesa: Desmond Tutu.

[22] Teacher: O.K., keep quiet and stop writing. Come and tell …

Thabo is the first to act by identifying the bishop in [1] and instructing a fellow learner to paste the appropriate piece of paper onto the poster. Mpho carries on with the task in [10] by identifying a person as bishop (as Thabo did in [1]). Tebogo disagrees with her monitoring the group in [11]. In [12] Mpho asks information from Palesa in [12], but Palesa does not know the answer. She says so in [13] and then apparently moves to another person asking who he is. She then reasons that the unknown person must be the one without a birth date. She also expresses doubt in this case. In [14] Mpho expresses her doubt, probably under the influence of Palesa and wants her performance checked by asking if the pieces of paper are in the right places. Palesa answers in the affirmative in [15]. In [16] Mpho again asks Palesa to check her work. The two girls are involved in quality assurance. This reflection on learning can also be seen as meta-learning.

In [17] the teacher interrupts and warns the learners to finish. In [18] Thabo comes to a conclusion. In [19] Mpho expresses concern on the attitude of the learners in the group and the quality of their work. In [20] Tebogo asks for help with information. Palesa answers in [21].

In [22] the teacher ends the groupwork and gives instructions for feedback.

The complexity of the task is reflected in the interaction. There is evidence of reasoning (making deductions). The self-regulating characteristic of learning comes to the fore where learners are reflecting on their own learning. The intertwinement of the social and learning dimensions of co-operative learning is evident in the disagreement in [11]. Tebogo comments on the group's performance ("No, we are making a mistake") rather than on the truth value of the proposition in [10], which would be "No, this one is not a bishop."

Event 5: "Clan Names I" at school A

The learners had to discuss their clan song in their group and choose one person to present the clan song to the class. For preparation they had to ask their grandparents for information.

[1] Lehlohonolo: Ke mokwena wa ha Modibeli, ya sa jeng sengwathwana sa maobane. (*I am a crocodile of Modibeli who does not take food prepared yesterday.*)

[2] Motlatsi: Ha re utlwe na o reng wena, buela hodimo. (*We can't hear what you are saying. Speak aloud.*)

[3] Motale: Tlohela ho pota wena. (*Stop joking, you.*)

[4] Zolenzima: Hee lona banna le reng ka seboko sa rona? Re Bakwena ba sa jeng dijo tsa maobane. (*Hey man, what have you said about our clan song? We Bakwena we do not take yesterday's food.*)

[5] Motale: Ke mang ya tla bua bakeng sa *group* ya rona? (*Who is going to talk on behalf of our group?*)

[6] Lehlohonolo: Ke wena monna Motale. (*It's you man, Motale.*)

[7] Motale: Ee, haeba le tla ntjwetsa hore na ke reng. (*OK, only if you tell me what to say.*)

In [1] Lehlohonolo opens the discussion with a citing from the clan song. The second speaker, Motlatsi does not react to the information in [1], but states in [2] that he cannot hear the speaker and requests him to speak louder ([2]). In [3] Motale keeps order by addressing someone who is joking, probably Motlatsi. In [4] Zolenzima returns to the learning content. He makes sure what the first speaker has said. Motale organises in [5] by asking who is going to give feedback. Lehlohonolo indicates Motale in [6], who agrees in [7] on condition that the others tell him what to say.

In only two of the turns the learning content is mentioned. The others revolve around organisation. Motale is obviously the leader who organises the learners in the group. This event differs from the others in the relative amount of time that is spent on organising compared to learning. From a learning perspective the productivity or efficiency of the group can be questioned. It is possible that the large amount of organising may be part of the growing pains in the new learning mode. Another possibility is that the learners in this group or in the whole class are not well disciplined. Only a study of much larger extent in which this group is followed for a longer period, will clear the issue.

Event 6: "Clan Names II" at school A

For the second lesson on clan names new groups were formed according to the jigsaw technique (Gawe, 2000:202). The teacher gives the following instruction:

"*Now I am going to give you envelopes.* Ka hara dienvelope tsena *you are going to find cards with numbers 1, 2, 3, 4, 5, 6* jwalo-jwalo. (*Inside these envelopes …*). *People with the same number on their cards must sit together in a group and discuss what you talked about in the groups where you were before.* I mong le e mong a bue ka *clan song* ya hae *groupong* e ntjha. (*Each one of you must give his/her clan song in the new group.*)"

Only part of the communication is given here. Motale was part of the group, representing the Bakwena. The others came from different groups.

[5] Motale: Ho neng re o mametse, o se ke wa re nahana hore ke wena feela. (*We have been listening to you for a long time. You are not the only one here.*)

[6] Thabo: Ke Mokatse. (*I am a cat.*)

[7] Lerato: Ae, Bakatse ba bitswa Basia. (*No, the people of the cat are called Basia.*)

[8] Tshepo: Ke Mofokeng, ke ja bohobe ka metsi a pula. (*I am of the people of the hare. I eat bread with rainwater.*)

[9] Motale: Ke mang No. 6? (*Who is No.6?*)

[10] Nepo: Ha le mamele lona. (*You (plural) are not listening.*)

[11] Motale: Bua o itse seboko sa hao ke mang? No. 3 bua! (*Speak, what did you say your clan name is, No.3?*)

[12] Thabo: Ae, no. 3 ke nna, ke Mosia nna. (*No, I am No.3 and I am a Mosia.*)

[13] Sechaba: Ke sa ntsane ke inahana, ntlohele. (*I am still thinking. Leave me alone.*)

In [5] a learner is called to order. In [6] a member of the group identifies himself as a member of the Basia, which he calls Bakatse. The next learner corrects him in [7]. Turn [8] is not a reaction to the previous turn, but is an addition to the body of knowledge on clans. There is no reaction on the new information, which probably means it is accepted. Turn [9] has to do with the organisation and the group waits for a further contribution. In [10] someone tries to keep order by accusing others of not paying attention. In turn [11] Motale does a kind of revision by checking if No. 3 can give his clan name correctly. He however addresses the wrong person and No. 3 comes forward. The learner in [13] is not eager to co-operate.

In this event learning is again situated in the cultural context of the learners. The learning is also cumulative in the sense that learners first learned about their own clan, thereafter extending their knowledge to include other clans.

Summary

The descriptions of the learning events reveal that the learners were co-constructing shared meaning through language. Mostly the speech acts consisted of making statements, giving information, agreeing or disagreeing, and coming to conclusions. These types of speech acts are known as *representatives*. Here "the speaker is committed, in varying degrees, to the truth of a proposition" (Crystal, 1998:121). In the present study the propositions contain details of the learning content. There are also speech acts where the learners are commanding, asking questions, requesting, insisting on collaboration, etc. These types of speech acts where "the speaker tries to get the hearer to do something" are called *directives* (Crystal, 1998:121). Directives were mainly used to keep the group going.

Social roles

The verbal interaction also reveals the social system emerging within the groups. Each classroom forms a miniature society with hierarchical or authority relationships, roles of teachers and learners and norms for behaviour (Joyce & Weil, 1972:15). In a traditional classroom the teacher is leader, organiser, main or sole source of information and transmitter of knowledge, while the learners are passive listeners. A traditional teacher seems to take responsibility for the learners' learning. In an OBE classroom small societies are formed within the society of the classroom when co-operative learning takes place. Many of the roles associated with a teacher now rest with the learners, while the teacher becomes facilitator, advisor and only one of the possible sources of information.

While working together in the groups towards a common goal, i.e. the completion of a task, the Gr. 4 learners took on certain roles. In the overall data seven roles were identified: leader, organiser, scribe, reporter, quality controller, source of information and listener. In acting out those roles learners made certain contributions and took on certain responsibilities. The acting out of roles is seen by Gawe (2000:195) as "distributed leadership".

Leader

The task of the leader included initiating the discussion, encouraging members to participate, keeping order, warning, propelling the discussion and closing the discussion. He/she was a link between the teacher and the group. A typical expression you would expect from a leader were the words of Motale in a lesson on "My School":

> Ha re arabeng dipotso tsena ka pele. (*Let's quickly answer these questions.*)

Motale led the group of school A throughout the lessons (Motsitsi, 2001), even though he did not contribute much factual knowledge (*cf.* Event 5). Tumelo of school B and Mpho of school C acted as leaders on occasions (*cf.* Event 1 and Event 3).

Organiser

The organiser paid attention to detail on the performing of the given task, e.g. making sure that the scribe had a pen and glue. The function of timekeeping was included in this role. In the person of Motale this role overlapped with the leadership role. Different group members contributed to the organisation, even the shy ones as can be seen from the words of Khetang at school A in the lesson on "Schools Then":

> Khetang: Ho thwe "stop". (*We are told to stop.*)

Motlatsi may also be considered to be organising when he asks a learner to speak louder (Event 5, turn [2]).

Scribe/Secretary/Record keeper

This person prepared the documents that had to reflect the activities of the group. Usually this consisted of writing down information upon which the group had agreed. In the case of the lesson on "Important People" this person pasted the pieces of paper with information onto the right place on the poster. The scribe is often quiet. His/her function is deduced from the words of others.

Reporter

Inter-group as well as intra-group reporting took place. After the completion of each task, feedback was given to the class. This can be seen as inter-group reporting. Group members indicated a reporter, who sometimes was the group leader, as in Event 5. On several occasions members reported to their group on research they had done. In the second lesson on "Clan Names" each member of the new group had the responsibility to report on his/her clan by giving information discussed in the original group. In the lesson on "Schools Then" learners reported on the information they had collected at home.

Quality controller

The person who took on this role was responsible for quality assurance. Not only the correctness of information was assessed, but also the neatness of the work. Palesa in school C wanted the written work to be neat (*cf.* Event 3). Mpho, also in school C, reminds her group that the work should be presentable (*cf.* Event 4).

Listener

From the turn taking in the interaction it is clear that all the learners were listeners and mostly active listeners in that they reacted to other learners' statements and questions. Those who did not listen were called to attention by their peers.

Source of information

This role is traditionally associated with the teacher. In Events 3 and 5, after having done research at home, each learner becomes a source of information for the group. Again during the jigsaw in Event 6 each learner had to provide information on his clan to the new group.

Learning processes

There is evidence of the construction of knowledge, cumulative in the sense that the prior knowledge is taken into account, self-regulated in the monitoring function and goal-directed in the sense of performing the task for the outcomes.

The verbal interaction revealed that learners presented information to the group, while their peers listened. The information was negotiated in the sense that there was agreement or disagreement and adjustments and corrections were made. An example of the debate on information or knowledge was to be found in the completion of the task on "Important People". In this task deductions were made (Event 4). In the task on "Schools Then" learners had to do their own research with the community as a resource. They collected information individually, constructed a body of knowledge together in the group and made comparisons between the new, co-constructed knowledge and their previous knowledge of the life-world (Event 3).

Although most of the cognitive learning revolved around facts, there is evidence of a constructive and collaborative learning process. The situated nature of learning became evident in that it took place in a cultural context, where members of the community became resources (*cf.* Events 3, 4, and 5). Learning was also situated in the social context of the groups (*cf.* section on social roles). Learners built upon their experiences (e.g. of schools today) making learning cumulative. There were instances where the group members monitored their work, which may point to a touch of the self-regulating characteristic of learning. Doing their own research may be one of the ways in which learning is individually different. In all the tasks learners worked together towards the achievement of certain goals or outcomes (Motsitsi, 2001:49). Collaboration and goal-directness were the most prominent characteristics of learning observed in this study. In spite of the humble beginnings of co-operative learning the characteristics of learning in a social constructivist sense were present (De Corte, 1996:9; Masithela & Steyn, 1999:23).

The success of the co-operative learning was dependent on a common language that learners could understand and express themselves in. Sesotho, the home language of the majority of the learners in the Mangaung schools, was used for meaning-making. Even the teacher used Sesotho when talking to a group (*cf.* Event 1, turn [2]). This language was not the official medium of instruction of the schools. The teacher tried to use English, but when explaining the tasks, had to switch to Sesotho. With the exception of one sentence (Event 4, turn [12]), the only evidence of the official medium of instruction in the co-operative learning events, were the English terms embedded in Sesotho sentences. The effects of code-switching and code-mixing between the mother tongue and the language of instruction in the South African context need the urgent attention of researchers. This research should be based on in depth studies of the interaction in real classrooms.

Conclusion

In this study the nature of co-operative learning among Grade 4 learners who, for the first time, were confronted with a task-based approach in the social sciences was investigated in three schools in Mangaung. The verbal interaction of learners working in groups to complete a given task, was recorded, described and analysed.

The investigation showed that the learners coped with co-operative learning, despite it being a totally new approach implemented in an unfavourable classroom environment. They revealed the necessary social skills to function in a group working towards a common goal. They enacted roles traditionally associated with the teacher. By sharing information and knowledge they were engaged in a meaning making process (through a common language) and their learning was clearly collaborative and goal-directed. When confronted with the task-based form of co-operative learning, they were able to make the sudden shift to the new way of learning. It is clear that the learners showed the potential to learn in an OBE environment.

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